

APPLICANT(S): Iddan, Gavriel et al.  
SERIAL NO.: 09/800,470  
FILED: March 8, 2001  
Page 9

## **REMARKS**

The present response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Applicants assert that the present invention is new, non-obvious and useful. Favorable reconsideration and allowance of the application is respectfully requested.

### **The Interviews**

Applicants wish to thank Examiner Nhon T. Diep for granting and attending the in-person interview on November 9, 2004 with Applicants' representatives, Caleb Pollack, Reg. No. 37,912, attorney of record for Applicants, Zeev Pearl, and Rachel Bentov, a representative of the assignee, and further for granting telephone interviews with Caleb Pollack on November 16 and 18, 2004.

During the interviews, Applicants' representatives and the Examiner discussed U.S. 5,604,531 to Iddan et al. ("Iddan '531"), U.S. 5,929,901 to Adair et al. ("Adair"), U.S. 6,106,457 to Perkins et al. ("Perkins"), Japanese published application 5745833 ("the '833 Application"), and Japanese published application 4109927 ("the '927 application").

Applicants' representatives discussed with the Examiner proposed claim amendments, and discussed canceling, without prejudice, certain claims.

Applicants' representatives argued that it is improper to combine Adair with the '833 Application, for at least the reason that the system of Adair (and similar systems) is vastly different in operation and design, and in design constraints, from the system of the '833 Application (and similar systems such as described in the '927 application and as described in Iddan '531). Applicants' representatives further argued that the system of Applicants' claims as amended is different from Adair (and similar endoscope systems) in operation and design, and in design constraints, and thus it is improper to use a combination including Adair in a prior art rejection of Applicants' claims. The Examiner agreed. Applicants' representatives further argued that it is improper to combine systems such as Iddan '531, the '833 Application, and the '927 application with the system described in Adair. These arguments are discussed more fully below. Applicants' representatives argued that it is improper to

APPLICANT(S): Iddan, Gavriel et al.  
SERIAL NO.: 09/800,470  
FILED: March 8, 2001  
Page 10

combine systems such as Iddan '531, the '833 Application, and the '927 application with Perkins.

During the November 16 and 18, 2004, telephone interviews, amendments to claim 15 were presented to the Examiner. The Examiner agreed that the amendments to claim 15 overcame the prior art rejections of record of claim 15. The amendments submitted in this Amendment and Response include the agreed upon claim amendments and further clarifying amendments.

### **Status of Claims**

Claims 1-57 are pending. Claims 1, 6, 15, 16, 18-22, 26, 27 and 29-30 have been amended, claims 56-59 have been added, and claims 31-55 have been cancelled. In making these cancellations without prejudice, Applicants reserve all rights in these claims to file one or more divisional and/or continuation patent applications.

Claims 6, 16, 18-22, 26, 27, and 29-30 have been amended to more clearly define what aspects of the invention are being claimed, for form, and to correct claim dependencies.

At least the amendments to claims 6, 16, 18-22, 26, 27, and 29-30 are not being made for reasons of patentability and do not narrow the scope of the claims. Thus at least the amendments to these claims are not subject to the complete bar against the use of the Doctrine of Equivalents as outlined in *Festo Corporation v. Shoketsu Kinzoku Kogyo Kapushiki Co., Ltd.*

Applicants respectfully assert that the amendments to the claims and specification add no new matter.

### **Claim Rejections**

#### **35 U.S.C. § 103 Rejection Based on the '833 Application in View of Adair**

In the Office Action, the Examiner rejected claims 1-2, 7, 15-16, 30-36, 40-42, 46-47 and 50 under 35 U.S.C. § 103 based on Japanese published application 5745833 ("the '833 Application") in view of U.S. 5,929,901 to Adair et al. ("Adair"). Applicants respectfully

APPLICANT(S): Iddan, Gavriel et al.  
SERIAL NO.: 09/800,470  
FILED: March 8, 2001  
Page 11

traverse the rejections of claims 1-2, 7, 15-16, 30-36, 40-42, 46-47 and 50 under 35 U.S.C. § 103 based on the '833 Application in view of Adair in view of the remarks that follow.

During the November 9, 16 and 18, 2004 interviews, the Examiner and Applicants' representatives agreed on amendments that would overcome the prior art rejections of record. These amendments are reflected in the amendments to the claims, above. Furthermore, Applicants' representatives argued that it was improper to combine the '833 Application and Adair. The Examiner agreed with these arguments, which are presented below.

Applicants assert that it is improper to combine the '833 Application and Adair, as among other reasons, the two references are in different technical fields, and have different design and operational constraints.

The '833 Application describes a "small capsule in size which may be inserted via the human mouth" for imaging the gastrointestinal tract, while Adair generally describes an endoscope. A typically swallowable in-vivo imaging capsule has size constraints in its width and also in its length (should it be oblong); essentially such a device has size constraints in every dimension. An endoscope has size constraints in its width, but not generally in its length, as such devices may be several meters long. In fact, endoscope width constraints may be more severe than that of swallowable capsules, as the width of an endoscope includes control cables or other structures, and may be divided up into several channels (see, e.g., Adair, col. 4, ll. 49-56), each of which clearly is narrower than the overall width of the device.

Adair teaches modifying a CMOS camera, for example so that it is narrower but extends lengthwise – circuitry surrounding the light gathering portions is removed from the plane of the light gathering portions and located on additional circuit boards placed behind the imaging plane (see Adair, col. 6, ll. 17-50, Fig. 2b). This solution may be suitable for endoscopes, where length is plentiful but width is not, but is not suitable for typically swallowable imaging devices. Thus it is not only improper to combine Adair with swallowable in-vivo imaging capsule references, but the solution of Adair teaches away from such a combination.

Given the field of Applicants' claims (generally, an in-vivo imaging device where within a housing are enclosed at least a camera, transmitter, illumination source, and optical

APPLICANT(S): Iddan, Gavriel et al.  
SERIAL NO.: 09/800,470  
FILED: March 8, 2001  
Page 12

system), it is improper to consider Adair as being prior art to Applicants' claims. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was considered." Manual of Patent Examining Procedure ("M.P.E.P.") 2100-122; see also *In Re Clay*, 966 F.2d 656, 658-59 (Fed. Cir. 1992). Applicants' invention is in a new field which is different from that of conventional endoscopy (e.g., the field of Adair), and furthermore the devices of Adair and the '833 Application are in different fields. See, e.g., *Wang Labs., Inc. v Toshiba Corp.*, 993 F.2d 858, 864 (Fed. Cir., 1993) (a prior memory system was not in the same field of endeavor as a patent for SIMM memory "merely because it relates to memories"; further the prior art memory was not pertinent). The constraints and problems in the field of Applicants' claims are different from endoscopy, for at least the reasons that space constraints differ in quantity and in the dimensions along which such constraints exist, and furthermore, different power constraints exist.

Further, as discussed above, Adair cannot be considered to be "reasonably pertinent to the particular problem with which the inventor was considered," since Adair's endoscope has different design and operational constraints from the constraints of the devices described in Applicants' claims, and the solution to which Adair is directed is not needed and is in fact detrimental to the operation of an imaging device as described by Applicants' claims.

Applicants assert that it is improper to combine Adair and the '833 Application to render obvious Applicants' claims as originally filed. Applicants have amended claims 1 and 15 to more clearly define what aspects of their invention are being claimed. These amendments also make it more clear that it is improper to combine Adair and the '833 Application to render obvious Applicants' claims, as amended. For example, Applicants' claim 1 includes, *inter alia*,

a housing ... enclosing at least: at least one CMOS imaging camera, at least one illumination source ..., an optical system ... and a transmitter ....

Applicants' claim 15 includes, *inter alia*,

[a] housing enclosing at least:

APPLICANT(S): Iddan, Gavriel et al.  
SERIAL NO.: 09/800,470  
FILED: March 8, 2001  
Page 13

at least one imaging camera;  
at least two illumination sources ...;  
an optical system for imaging the gastrointestinal tract site onto the imaging camera, the optical system being separated from the optical window by a gap, the camera imaging the site via the optical window and via the optical system, and the illumination sources illuminating the site directly via the optical window and not via the optical system; and  
a transmitter for transmitting an output of the imaging camera

As discussed above, prior art references describing endoscopes, such as Adair, grapple with operational and design constraints that are different from the design constraints of devices where the components of the device are disposed within a single housing. Thus, Adair cannot be considered to be available as prior art to reject Applicants' claims, and the combination of Adair and the '833 Application is improper.

Applicants further submit that even if a combination of Adair and the '833 Application is made, such a combination would not teach the limitations described in Applicants' independent claim 15, as amended. An obviousness rejection requires a teaching or a suggestion by the relied upon prior art of all the elements of a claim (M.P.E.P. §§2143, 2143.03). Claim 15, as amended, is not described or suggested by in-vivo devices such as Iddan '531, the '833 Application or the '927 Application, taken alone or in combination with Adair, Perkins or other prior art of record.

For example, both the '833 Application (see, e.g., the '833 Application Fig. 1) and Adair (see, e.g., Adair col. 5, ll. 34-44) lack an optical system being separated from an optical window by a gap. Similarly, both the '833 Application and Adair (see, e.g., Adair item 22) lack illumination sources illuminating a site directly via an optical window, rather than via a separate an optical system.

As discussed above, claims 1 and 15, as amended, are allowable over the prior art of record. Each of claims 2, 7, 16, and 30 depends from one of claims 1 or 15, as amended, and therefore includes all the limitations of one of those claims. Therefore, each of claims 2, 7, 16, and 30 is likewise allowable. Claims 31-55 have been cancelled. Applicants thus request that the Examiner withdraw the rejection of claims 1-2, 7, 15-16, 30-36, 40-42, 46-47 and 50 under 35 U.S.C. § 103 based on the '833 Application in view of Adair.

APPLICANT(S): Iddan, Gavriel et al.  
SERIAL NO.: 09/800,470  
FILED: March 8, 2001  
Page 14

**35 U.S.C. § 103 Rejection Based on the '833 Application, Adair and Salvati**

In the Office Action, the Examiner rejected claims 3-4, 6, 17-20, and 52-53, under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of U.S. Patent 6,393,431 to Salvati et al. ("Salvati"). Applicants respectfully traverse the rejection of claims 3-4, 6, 17-20, and 52-53, under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of Salvati in view of the remarks that follow.

As discussed above, claims 1 and 15, as amended, are allowable over the prior art of record. Salvati does not cure the deficiencies of the '833 Application and Adair. Each of claims 3-4, 6, and 17-20 depends from one of claims 1 or 15, as amended, and therefore includes all the limitations of one of those claims. Therefore, each of claims 3-4, 6, and 17-20 is likewise allowable. Claims 31-55 have been cancelled. Applicants thus request that the Examiner withdraw the rejection of claims 3-4, 6, 17-20, and 52-53, under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of Salvati.

**35 U.S.C. § 103 Rejection Based on the '833 Application and Adair**

In the Office Action, the Examiner rejected claims 5, 10-14, 23-29, 37-39, 43-45 and 54 under 35 U.S.C. § 103 based on the '833 Application in view of Adair. Applicants respectfully traverse the rejection of claims 5, 10-14, 23-29, 37-39, 43-45 and 54 under 35 U.S.C. § 103 based on the '833 Application in view of Adair.

As discussed above, claims 1 and 15, as amended, are allowable over the prior art of record. Each of claims 5, 10-14, and 23-29 depends from one of claims 1 or 15, as amended, and therefore includes all the limitations of one of those claims. Therefore, each of claims 5, 10-14, and 23-29 is likewise allowable. Claims 31-55 have been cancelled. Applicants thus request that the Examiner withdraw the rejection of claims 5, 10-14, 23-29, 37-39, 43-45 and 54 under 35 U.S.C. § 103 based on the '833 Application in view of Adair.

APPLICANT(S): Iddan, Gavriel et al.  
SERIAL NO.: 09/800,470  
FILED: March 8, 2001  
Page 15

**35 U.S.C. § 103 Rejection Based on the '833 Application, Adair and Perkins**

In the Office Action, the Examiner rejected claims 8 and 51 under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of U.S. Patent 6,106,457 to Perkins et al. ("Perkins"). Applicants respectfully traverse the rejection of claims 8 and 51 under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of Perkins.

As discussed above, claim 1, as amended, is allowable over the prior art of record. Perkins does not cure the deficiencies of Adair and the '833 Application. Claim 8 depends from claim 1 and therefore includes all the limitations that claim. Therefore, claim 8 is likewise allowable. Claim 51 has been cancelled. Applicants thus request that the Examiner withdraw the rejection of claims 8 and 51 under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of Perkins.

**35 U.S.C. § 103 Rejection Based on the '833 Application, Adair and Leising**

In the Office Action, the Examiner rejected claims 9 and 48-49 under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of U.S. Patent 6,117,529 to Leising et al. ("Leising"). Applicants respectfully traverse the rejection of claims 9 and 48-49 under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of Leising.

As discussed above, claim 1, as amended, is allowable over the prior art of record. Leising does not cure the deficiencies of Adair and the '833 Application. Claim 9 depends from claim 1 and therefore includes all the limitations that claim. Therefore, claim 9 is likewise allowable. Claims 48-49 have been cancelled. Applicants thus request that the Examiner withdraw the rejection of claims 9 and 48-49 under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of Leising.

APPLICANT(S): Iddan, Gavriel et al.  
SERIAL NO.: 09/800,470  
FILED: March 8, 2001  
Page 16

**35 U.S.C. § 103 Rejection Based on the '833 Application,  
Adair, Salvati and Perkins**

In the Office Action, the Examiner rejected claim 21 under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of Salvati and Perkins. Applicants respectfully traverse the rejection of claim 21 under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of Salvati and Perkins.

As discussed above, claim 15, as amended, is allowable over the prior art of record. Neither Salvati nor Perkins, alone or in combination, cures the deficiencies of Adair and the '833 Application. Claim 21 depends from claim 15 and therefore includes all the limitations that claim. Therefore, claim 21 is likewise allowable. Applicants thus request that the Examiner withdraw the rejection of claim 21 under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of Salvati and Perkins.

**35 U.S.C. § 103 Rejection Based on the '833 Application,  
Adair, Salvati and Leising**

In the Office Action, the Examiner rejected claim 22 under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of Salvati and U.S. Patent 6,117,529 to Leising et al. ("Leising"). Applicants respectfully traverse the rejection of claim 22 under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of Salvati and Leising.

As discussed above, claim 15, as amended, is allowable over the prior art of record. Neither Salvati nor Leising, alone or in combination, cures the deficiencies of Adair and the '833 Application. Claim 22 depends from claim 15 and therefore includes all the limitations that claim. Therefore, claim 22 is likewise allowable. Applicants thus request that the Examiner withdraw the rejection of claim 22 under 35 U.S.C. § 103 based on the '833 Application in view of Adair and further in view of Salvati and Leising.



APPLICANT(S): Iddan, Gavriel et al.  
SERIAL NO.: 09/800,470  
FILED: March 8, 2001  
Page 17

### **New Claims**

Applicants have added new claims 56 and 57 which, generally, include the limitation that the device is about 30 mm in length. Applicants have added new claim 58 which, generally, includes the limitation of a CMOS device, and new claim 59 which includes the limitation of a radio transmitter.

None of the prior art of record includes the limitation that a device is about 30 mm in length. Furthermore, each of claims 56-58 depends from one of allowable claims 1 or 15, as amended, and therefore includes all the limitations of one of those claims. Therefore, each of claims 56-58 is likewise allowable.

### **Conclusion**

Applicants submit that, for at least the reasons presented above, Applicants' claims are patentable. Their favorable reconsideration and allowance is respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

APPLICANT(S): Iddan, Gavriel et al.  
SERIAL NO.: 09/800,470  
FILED: March 8, 2001  
Page 18

Applicants request that the \$72 fee for the four (4) new dependent claims be deducted from deposit account No. 05-0649. No additional fee is believed to be due associated with this paper, however, if any such fee is due, please charge such fee to deposit account No. 05-0649.

Respectfully submitted,

  
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Dated: November 22, 2004

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